METHOD FOR ASSESSING INFORMATION TECHNOLOGY NEEDS IN A BUSINESS

TECHNICAL FIELD OF THE INVENTION

The present invention relates in general to business operations and policy and more particularly to a method for assessing information technology needs in a business.

BACKGROUND OF THE INVENTION

The most prevalent method previously used to determine the investment of Information Technology to resolve business problems and provide business savings is the Net Present Value (NPV) assessment. This is determined by assembling the cost of the Information Technology activity (normally termed an Initiative or Program) and the predicted savings generated by such an activity. The cost calculations include a net pre-tax cash flow, a cumulative cash flow, a pre-tax net present value, a net present value, and a payback period. The net pre-tax cash flow identifies on a year by year basis the point at which requested funding will be depleted and the impact of the savings on the information technology spending. The cumulative cash flow provides a clearer financial view of the effect of the savings on the investment as the net pre-tax cash flow increases each year. The pre-tax net present value is the same as the investment and is similar to investing money in a bank that gives interest each year. The net present value is an interest that grows exponentially on a year by year basis and totaling the yearly results from the pre-tax net present value. The payback period is normally expressed in months with the shorter the timeframe the quicker the realization of the return on the investment.

The Net Present Value assessment provides various negative aspects in identifying whether an investment in Information technology is worthwhile. This assessment is money only oriented and may not consider the full costs of the activity as it takes into account only what the Initiative will cost and not the cost of the full impact on the business. The assessment only considers build and

deployment costs while using unsubstantiated operational costs and unfounded savings or benefits. There is no acknowledgment of savings in the business. A lack of both knowledge and acceptance of the savings in the business is typically generated with no affirmation by those receiving the claimed savings. There are also no assessment categories for various activities of the initiative. Activities are not grouped for assessment purposes with inaccurate data resulting as every activity is compared with each other. Therefore, it is desirable to have an accurate assessment that enables business leaders to make appropriate decisions regarding investments in Information technology for the business.

SUMMARY OF THE INVENTION

From the foregoing, it may be appreciated by those skilled in the art that a need has arisen for a structured, all-encompassing, and value added approach for driving business decisions regarding the funding of Information Technology activities that will generate greater value to the business. In accordance with the present invention, a method for assessing information technology needs in a business is provided that substantially eliminates or greatly reduces disadvantages and problems associated with conventional assessment techniques.

According to an embodiment of the present invention, there is provided a method for assessing information technology needs in a business that includes gathering information associated with the operation of the business and the activities pertaining to the information technology initiative desired to be implemented, applying strategic value ratings to the activities, categorizing the activities so that like activities are assessed against each other, and determining which activities are to be invested in according to assigned strategic value ratings.

The present invention provides various technical advantages over conventional assessment techniques. Some of these technical advantages are shown and described in the description of the present invention. Embodiments of the present invention may enjoy some, all, or none of these technical advantages. Other technical advantages may be readily ascertainable by those skilled in the art from the following figures, description, and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the present invention and the advantages thereof, reference is now made to the following description, taken in conjunction with the accompanying drawings, wherein like reference numerals represent like parts, in which:

FIGURE 1 illustrates a simplified diagram of a strategic value model;

FIGURE 2 illustrates a simplified diagram of a strategic positioning category of the strategic value model;

FIGURE 3 illustrates a simplified diagram of a financial impact category of the strategic value model;

FIGURE 4 illustrates a simplified diagram of an intellectual assets category of the strategic value model;

FIGURE 5 illustrates a simplified diagram of a business drivers category of the strategic value model;

FIGURE 6 illustrates a simplified diagram of a technical impact overlay of the strategic value model;

FIGURE 7 illustrates a simplified diagram of a risk impact overlay of the strategic value model.

FIGURE 8 illustrates a flow process for the strategic value model.

DETAILED DESCRIPTION OF THE INVENTION

FIGURE 1 is a simplified diagram of a strategic value model 10. Strategic value model 10 provides an ability to assess new and existing initiatives related to the information technology strategy for a business. The objective of strategic value model 10 is to provide a decision tool for business operating mechanisms in making recommendations and decisions on whether to support certain initiatives and release or redirect funds based on factors over and above a pure financial view.

Strategic value model 10 includes key categories of measurement and overlaying measurements. The key categories of measurement include strategic positioning 12, financial impact 14, intellectual assets 16, and business drivers 18. The categories of overlay measurement include technical impact 20 and risk impact 22. Ratings 24 and filters 26 are then applied within strategic value model 10.

Strategic positioning 12 determines how an initiative aligns to key areas of strategy. Financial impact 14 assesses the net present value (NPV) and payback of an initiative. This information is generated through a cost and benefit template. The cost and benefit template is designed to capture full costs and total benefits data, both financial and non-financial, from all information technology initiatives, regardless of the life cycle phase it is in (e.g. explore, define, design, etc.). Summary data, such as the results of costs, savings, cash flow, net present value (NPV), payback, and profit and loss impact, is then provided to strategic value model 10 which is essential for the financial and intellectual aspects of the process.

Intellectual assets 16, or non-financial benefits, are driven from a cost and benefit model and help align to invisible balance sheet aspects such as human capital (employee satisfaction), structural capital (intellectual property assets), and external capital (client satisfaction). Business Drivers 18 capture events such as alignment to investment plan, alignment to an Enterprise Process Model (EPM), sustainment of business, contractual agreements, legal commitments, and alignment with merger/acquisition targets. Technical impact 20 assesses whether an initiative is in line with technology strategy, uses approved vendors, and is infrastructure compliant. Risk impact 22 provides a further overlay by understanding events such as implementation complexity and insuring an initiative is meeting and achieving its goals. Ratings 24 effectively provide weighting for priority and scoring within strategic value model 10. Filters 26 ensure that required sign off and approval have been obtained.

FIGURE 2 is a simplified diagram of strategic positioning 12. An important aspect of strategic positioning 12 is in the alignment of all initiatives to business strategies so that the initiatives are supporting or enabling the key focus for the future of the business. An initiative can be aligned to such business strategies as corporate strategic agenda, line of business strategies, service line and service offering strategies, and information technology strategies. Focus is also given to any geography, region, or country that the business considers important for growth.

During an explore or concept review phase of the initiative, an assessment is made as to how the

initiative relates to the business strategies. The activities of the initiative are reviewed as part of an operating mechanism support function by corporate strategy and planning and portfolio management to ensure that each activity is correctly aligned with strategic positioning 12 and there is no duplication. During the propose or value proposition review phase, an initiative is signed off by the relevant owner of the initiative. This will ensure that the business is aware of the initiative, can support its activities, provide a report of the progress and impact of the initiative. If signoff is not obtained, then no rating is applied to this category of strategic value model 10. During remaining phases of the initiative, a self assessment is performed to monitor any changes in alignment and, if so, re-engage the operating mechanism support function to capture the changes. Additionally, the operating mechanism may request initiative review for proper strategic positioning alignment to ensure that the initiative is still within the boundaries of the business direction. If it is not, funding may be ceased or reduced for the initiative. Therefore, it is in the best interests of the initiative to verify that all activities are valid at all times.

FIGURE 3 is a simplified diagram of financial impact 14. Conventionally, financial impact 14 has been basically the single focus for approving an initiative as it specified the cost and the return for the initiative. Though the present invention is based on the overall value of an initiative, financial impact 14 still remains an important part of the overall value. Financial impact 14 affects an initiative through net present value (NPV)

and payback. NPV is driven by the cost and benefit template and takes into account the pre-tax cash flow of an initiative. The pre-tax cash flow is savings plus capital costs plus ongoing non-capital costs which is exponentially grown on a yearly basis over a maximum five year period by a desired percent. Initiatives with negative NPVs are those worthy of consideration. The larger the negative NPV, the better return on investment for the business. Payback is also driven by the cost and benefit template. Payback looks at the cumulative cash flow of an initiative and determines in months when an initiative stops consuming expenses and starts making savings. The cumulative cash flow is the previous year's cumulative cash flow plus the current year's pre-tax cash flow. The quicker the payback period, the quicker savings are made.

During the explore or concept review phase of the initiative, financial impact 14 is not assessed as it is unlikely an initiative will be able to determine to enough degree of accuracy its costs and financial benefits. Any initiative claiming NPV or payback at this stage is likely to have done so under false pretences or performed unauthorized work by going further down the life cycle of the initiative than given the funding for the initiative. Financial impact 14 starts to be evident during the propose or value proposition review phase where an initiative will need to obtain sign off from the relevant business entities providing the funding and the beneficiaries where the savings will come from. This will ensure that the business is aware of the cost for the initiative and make certain that no beneficiaries receive a budgetary surprise further down the line. If

funding or benefits are not signed off, then escalation will be made to the operating mechanism. During the remaining phases of the initiative, a self assessment is performed to identify any changes to financial impact 14 and, if so, re-engage the operating mechanism support function to capture the changes. Additionally, the operating mechanism may request review of the initiative for proper financial impact assessment to ensure that it is still financially sound to pursue the initiative. If it is not, funding may be ceased or reduced. It is to the best interests of the initiative that costs, benefits, actuals, and outlooks are kept up to date, reported on the relevant templates, and published in a periodic manner.

FIGURE 4 is a simplified diagram of intellectual assets 16. Intellectual assets 16, or non-financial benefits, are important factors in determining value for an initiative as they support cornerstone principles of profitable growth, collaboration, service excellence, and continuous productivity improvement. Intellectual assets 16 affect the initiative through human capital, structural capital, and external capital. Intellectual assets 16 is driven by the cost and benefit template and takes into account the most common assets of the three capital aspects.

During the explore or concept review phase of the initiative, an assessment is made as to how the initiative relates to intellectual assets 16. Portfolio management performs a check on the activities of the initiative as part of the operating mechanism support function to ensure they are correctly aligned with intellectual assets 16 and there is no duplication.

During the propose or value proposition review phase of the initiative, sign off of the initiative from the relevant business entities and beneficiaries occurs. This will ensure that the business is aware of the initiative, can support its activities, and report the progress and impact of the initiative. During the remaining phases of the initiative, a self assessment is performed as to whether there are any changes to intellectual assets 16 and, if so, re-engage the operating mechanism support function to capture the changes. Additionally, the operating mechanism may request review of the initiative to ensure that intellectual asset alignment is still within the boundaries of the direction of the business. If it is not, funding may be ceased or reduced. It is therefore in the interest of the initiative to ensure that the cost and benefit template is updated, periodically published, and intellectual assets 16 are accurate to ensure the validity of initiative activities at all times.

FIGURE 5 is a simplified diagram of business drivers 18. Business drivers 18 may be viewed as imperative aspects of the business. It is important that all initiatives and associated activities are aligned with business drivers 18 to ensure that they are supporting or enabling the key focus for the future of the business. An initiative can align to business drivers 18 through alignment to investment plan, alignment to an enterprise process model, sustainment of business, contractual agreements and obligations, legal commitments, and alignment with merger and acquisition targets. In addition, focus is given to factors that align with an Information Technology plan for the business.

During the explore or concept review phase of the initiative, an assessment is made as to how the initiative relates to business drivers 18. Portfolio management performs a check on the activities of the initiative to ensure that they are correctly aligned to business drivers 18 and there is no duplication. During the propose or value proposition review phase of the initiative, sign off from the relevant entity occurs. This will ensure that the fundamental business drivers 18 are understood by the business so that the activities of the initiative are supported and correctly aligned. If sign off is not obtained, then no rating is applied to this category. During the remaining phases of the initiative, a self assessment is performed to determine whether there are any changes to business drivers 18 and, if so, re-engage the operating mechanism support function to capture the changes. Additionally, the operating mechanism may request review of an initiative from a business driver alignment perspective to ensure that it is still within the boundaries of the direction for the business. If it is not, then funding may be ceased or reduced. It is therefore in the best interest of the initiative to ensure that all activities of the initiative are valid with respect to business drivers 18.

An example of the creation of an information technology plan can be found in co-pending U.S. Application Serial No. 09/378,514 and co-pending U.S. Application Serial No. 10/606,661 which are hereby incorporated herein by reference. Strategic value model 10 can complement the creation of an information technology plan by pulling all of the business strategies, drivers, and technical requirements together

to clarify things for the business executive. Strategic value model 10 puts into context what the costs will be of achieving the desired outcome, what financial benefits will be received, what intellectual capital gains will be made, and the risk factors involved. This will provide the business executive with the information in a quantitative manner in order to prioritize information technology initiatives to support the needs of the business.

FIGURE 6 is a simplified diagram of technical impact 20. Technical impact 20 can effectively wipe out all of the ratings 24 from the key categories if the initiative is not aligned to key technical directions. Factors that are considered include availability of leading technology, architectural compliance, use of prevailing technology, in line with technology strategy, infrastructure compliance, and approved vendors. At all phases of the initiative, sign off approval from a Delivery Architecture Information Technology (DAIT) board, a Global Architecture Information Council (GAIC), or another corporate governance entity is needed. Without approval, the initiative will not receive any strategic value rating.

FIGURE 7 is a simplified diagram of risk impact 22. Risk impact 22 provides another override capability that can negate ratings from the key categories for the initiative. When making risk assessments, factors include impact to the business, impact to external clients, disruption to other initiatives, change in management, and implementation complexity. Well documented risk mitigation plans can assist an initiative when being rated. Poorly planned risks may have an

adverse affect on the ratings for the initiative. In all phases of the initiative, portfolio management will perform appropriate checks and verify alignment with relevant parts of the appropriate corporate governance entity. As a result, recommendations can be made and the operating mechanism will acknowledge and sign off on the risks.

Filters 26 are applied to every key category discussed above. Filters may change, but are mainly simple yes/no toggle tests in answer to whether sign off has been achieved. Ratings 24 are applied to the key categories discussed above. Ratings may change and may include the application of weights for priority purposes. A report is produced for each initiative to show the current strategic value rating on strategic positioning 12, financial impact 14, intellectual assets 16, business drivers 18, technical impact 20, and risk impact 22. The report will also show how the ratings were applied in each category. A rating comparison can then be performed among initiatives where initiatives with higher rating scores may be pursued and implemented before initiatives with lower rating scores.

FIGURE 8 shows a flow process supporting strategic value model 10. The flow process for strategic value model 10 includes four main tasks. The first task is to gather data 30. Data is gathered on defined templates for capture and presentation in a standard manner. The task of gathering data is associated with the various categories of strategic value model 10. Gathering data includes determining the alignment of a potential business initiative to key strategic positioning 12 such as corporate strategic agenda and specific business unit

strategies. For internal initiatives, a corporate strategy and planning entity and the lines of business make this determination. For external initiatives, consultation and collaboration with the client is performed. The financial aspects 14 of the business initiative are assessed, such as NPV and payback, via the cost and benefit template. Essential non-financial aspects, or intellectual assets 16, are identified from the invisible balance sheet such as human capital, structural capital, and external capital. Business drivers 18 (which contain events such as alignment to investment plans, alignment to enterprise process models, sustainment of business, contractual agreements, legal commitments, and alignment with merger and acquisition targets) are captured and assessed. The technical impact 20 of the initiative (alignment with the technology strategy, compliance with infrastructure, use of approved vendors) is also assessed. Further, the risks 22 of the initiative are also considered.

The next task of the flow process for strategic value model 10 is applying strategic value ratings 32. The activities of the initiative are scored and weighted according to the key categories of strategic value model 10 by appropriate ratings 24. Filters 26 are also applied to document appropriate approval for an activity. TABLE I shows an example of the application of the ratings 24 in strategic value model 10.

Evaluation Criteria	**Values**	**Scoring**	**Weight**
Strategic Positioning			20%
Corporate Level			
Alignment with key business strategies	Accelerate top line growth Improve productivity	100 points for each alignment to the content contained in the value column	
Alignment with strategic agenda	Execute line of business strategies Enhance market effectiveness Build innovation and thought leadership Enhance people care and development Achieve service excellence and client loyalty	100 points for each alignment to the content contained in the value column	
Alignment with goals and objectives	**financial:** Revenue growth - 9 - 11% Improve operating margin (mid-11%) EPS growth > revenue growth - 17% RONA > cost of capital - 10% Improve cash margin - 8% **business:** Grow Solutions Consulting Achieve Market Leadership in Business Process Outsourcing (BPO) Leverage brand - insights to operations Increase new Logo sales Increase pipeline, win-rate and velocity	100 points for each alignment to the content contained in the value column	

	Offshore Delivery Strategy **Continue Productivity Improvement** **Accelerate Digital Transformation** **Lead in Transformation Services**		
Alignment to strategic initiatives	Digital Transformation Next Level Solutions Consulting Transformation	100 points for each alignment to the content contained in the value column	
Major Unit Level			
Alignment with Line of Business (LOB) or Business Support Unit (BSU) key business strategies	TBD	50 points for each alignment to the content contained in the value column	
Alignment to growth strategies for service lines and offerings by region	TBD	50 points for each alignment to the content contained in the value column	
IT Level			
Alignment to IT strategies and plan	TBD Possible Examples: Legacy System Decommissioning Pre-requisite foundational element	TBD points for each alignment to the content contained in the value column	

Financial Impact			25%
Net Present Value ($) to the enterprise	Negative or Zero Small < 5 million Medium 5-10 million Large >10 million	Negative or Zero = 0 Small - 100 Medium - 200 Large - 500	
Payback Period	Short < 18 months Medium 18-24 months Long 24-48 months Too Long >48	Short - 150 Medium - 100 Long - 50 Too Long - 0	
Capital	No capital Small - TBD Medium - TBD Long - TBD	150 100 50 0	
Intellectual Assets			25%
Intellectual Capital Balance Sheet			
Human Capital	TBD Possible Examples: Employee Turnover	50 points for each alignment to the content contained in the value column if it can be measured	
Structural Capital	TBD Possible Examples: Time to Market	50 points for each alignment to the content contained in the value column if it can be measured	
External Capital	TBD Possible Examples: Client Satisfaction	50 points for each alignment to the content contained in the value column if it can be measured	

Patent Opportunity or Existing Patent	Yes or No (taken from the pre-assessment process)	50 points for each alignment to the content contained in the value column if it can be measured	
Business Drivers			20%
Sustaining Business	Risk/Impact is minimal Risk/Impact is high	200 1000	
Contractual Agreement	Risk/Impact is minimal Risk/Impact is high	200 1000	
Legal Commitment	Risk/Impact is minimal Risk/Impact is high	200 1000	
Statutory or Regulatory Requirement	Risk/Impact is minimal Risk/Impact is high	200 1000	
Alignment to merger/acquisition	Risk/Impact is minimal Risk/Impact is high	200 1000	
Known audit exposure	Risk/Impact is minimal Risk/Impact is high	200 1000	
Technical Impact			5%
Global Architecture Information Council (GAIC) Sanctioned Strategy	Pass / Fail	No scoring (pass/fail) Pass = Global Process Leadership Council (GPLC) endorsement & prioritization can continue Fail = GPLC will not assess	

Approved Vendor	Pass / Fail	No scoring (pass/fail) Pass = GPLC endorsement & prioritization can continue Fail = GPLC will not assess	
Support Enterprise Integration Model	Pass / Fail	No scoring (pass/fail) Pass = GPLC endorsement & prioritization can continue Fail = GPLC will not assess	
Risk Impact			5%
Impact to Client	None Risk Low Risk Medium Risk High	None = 300 Low = 200 Medium = 100 High = 0	
Impact to external client	None Risk Low Risk Medium Risk High	None = 300 Low = 200 Medium = 100 High = 0	
Management of Change (human aspects)	None Risk Low Risk Medium Risk High	None = 300 Low = 200 Medium = 100 High = 0	
Audit exposure/risk area (potential)	None Risk Low Risk Medium Risk High	None = 300 Low = 200 Medium = 100 High = 0	

Implementation complexity Skills and Competencies Realistic ability to affect change Use of Prevailing Technology	None Risk Low Risk Medium Risk High	None = 300 Low = 200 Medium = 100 High = 0	
Mitigation Plan(s)	Yes or No	Yes = 50 No = 0	

TABLE I Strategic Value Ratings

Ratings 24 are applied to most strategic value categories and activities therein. A scoring system is applied to the categories with the total score for strategic positioning 12, financial impact 14, intellectual assets 16, and business drivers 18 being further rated against technical impact 20 and risk impact 22. The result yields a strategic value assessment that provides a determining factor of one initiative's value compared to another initiative. Filters 26 also affect the score for an initiative.

The third task in the flow process of strategic value model 10 is categorizing activities 34. Initiatives are categorized and reported so that like initiatives can be assessed against each other. Initiative categories include those that transform the business, grow the business, gain a competitive advantage, and require technology refresh.

The fourth task in the flow process of strategic value model 10 is determining the roadmap 36. A definitive list is compiled of all initiatives in the pipeline awaiting approval, in an active state, and in a suspended state. The ratings 24 from strategic value model 10 are used to support decisions for each initiative in the pipeline. This information is held in a software application that provides a complete enterprise view of the business and its technical environment and allows for quick assessment of any changes. The software application provides for the input of data gathered in task 30, the strategic value application in task 32, the categorizing performed in task 36, with the result being the core for the roadmap of task 36. The software application may be implemented as one or more software modules operating on one or more computing platforms.

In summary, the strategic value model provides a formal business decision tool which allows internal operating mechanisms, or business governance, and external clients to make fact based judgments, recommendations, and decisions regarding the support of certain business and information technology initiatives. The strategic value model enables the collection and assessment of accurate and timely data supported by key business leaders. With this information, business leaders can determine whether to release, redirect, or deny funding based on a comprehensive examination of facts over and above those of a purely financial nature. As a result, these informed decisions will translate into value for the business through proper alignment of

information technology to the business in order to deliver additional cost savings and benefit realization.

Thus, it is apparent that there has been provided, in accordance with the present invention, a method of assessing information technology in a business that satisfies the advantages presented above. Although the present invention has been described in detail, it should be understood that various changes, substitutions, and alterations may be readily ascertainable by those skilled in the art and may be made herein without departing from the spirit and scope of the present invention as defined by the following claims. Moreover, the present invention is not intended to be limited in any way by any statement made herein that is not otherwise reflected in the following claims.